

Listing of the Claims

A complete listing of the claims with proper claim identifiers is set forth below.

1. (Currently amended). An integrated read-only memory, comprising:
having selection transistors, each selection transistors having a drain connection[[.]];
having an electrode for feeding a voltage or a current[[.]];
having a layer between the drain connections and the electrode electrically linking the drain connections to the electrode, the electrical resistance of which the layer can be changed through the effect of a configuration voltage or a configuration current[[.]];
having a source connection per selection transistor[[.]]; and
having a bit line that is electrically connected to at least one source connection, in which the layer is formed as a common layer for linking the drain connections to the electrode, and
in which the electrical resistance of the layer can be changed locally.
2. (Currently amended). The read-only memory as claimed in of claim 1, in which wherein the resistance of the layer can be switched over.
3. (Currently amended). The read-only memory as claimed in of claim 1 or 2, in which wherein the resistance of the layer can be switched over between two resistance characteristic curves.
4. (Currently amended). The read-only memory of as claimed in one of the preceding claims 1, further comprising:
having a read voltage applied to the layer or a read current fed to the layer within a defined voltage or current range in a read Operation of the read-only memory, and
having a configuration voltage or a configuration current outside the voltage or current range provided for the read Operation in a configuration operation of the read-only memory.

5. (Currently amended). The read-only memory of as claimed in one of the preceding claims 1, wherein the read-only memory which is designed as a flash memory.

6. (Currently amended). The read-only memory of as claimed in one of the preceding claims 1, in which wherein the selection transistors are arranged in an array.

7. (Currently amended). The read-only memory as claimed in one of claims 1 to 6, in which wherein the bit line is connected to a decoder circuit.

8. (Currently amended). The read-only memory as claimed in one of claims 1 to 7, in which wherein the bit line is accessible for an external connection.

9. (Currently amended). The read-only memory of as claimed in one of the preceding claims 1, further comprising:

having a gate connection per selection transistor, and

having a word line that is electrically connected to at least one gate connection.

10. (Currently amended). The read-only memory as claimed in of claim 9, in which wherein the word line is connected to a decoder circuit.

11. (Currently amended). The read-only memory as claimed in of claim 9 or claim 10, in which wherein the word line is accessible for an external connection.

12. (Currently amended). The read-only memory of as claimed in one of the preceding claims 1, in which wherein the selection transistors have a planar construction in the substrate.

13. (Currently amended). The read-only memory as claimed in one of claims 1 to 11, in which wherein the selection transistors have a vertical construction in the Substrate.

14. (Currently amended). The read-only memory of as claimed in one of the preceding claims 1, in which wherein the layer is formed as a molecular layer.

15. (Currently amended). The read-only memory ~~as claimed in~~ of claim 14, in which wherein the layer contains rotaxane.

16. (Currently amended). The read-only memory ~~as claimed in~~ of claim 14, in which wherein the layer contains catenane.

17. (Currently amended). The read-only memory ~~as claimed in~~ of claim 14, in which wherein the layer contains a bispyridinium compound.

18. (Currently amended). The read-only memory ~~as claimed in~~ one of claims 1 to 13, in which wherein the layer is formed as a dielectric.

19. (Currently amended). The read-only memory ~~as claimed in~~ of claim 18, in which wherein the layer contains SrZrO₃.

20. (Currently amended). The read-only memory ~~as claimed in~~ one of claims 1 to 13, in which wherein the layer is formed as a polymer.

21. (Currently amended). The read-only memory ~~as claimed in~~ of claim 20, in which wherein the layer contains 3-nitrobenzal malonitrile, 1,4-phenylenediamine complex.

22. (Currently amended). The read-only memory ~~as claimed in~~ of claim 20, in which wherein the layer contains a chalcogenide compound.

23. (Currently amended). A method for operating an integrated read-only memory comprising selection transistors, each selection transistors having a drain connection; an electrode for feeding a voltage or a current; a layer between the drain connections and the electrode electrically linking the drain connections to the electrode, the electrical resistance of the layer can be changed through a configuration voltage or a configuration current; a source connection per selection transistor; and a bit line that is electrically connected to at least one source connection as claimed in one of the preceding claims, the method comprising:

applying, in which in a read operation, a read voltage or a read current within a defined voltage or current range is applied to the layer[[,]]; and

~~in which applying~~, in a configuration operation, a configuration voltage or a configuration current outside the voltage or current range provided for the read operation is applied to the layer.

24. (Currently amended). A method for producing an integrated read-only memory, the method comprises:

~~in which producing an array of selection transistors is produced using CMOS technology, each selection transistors transistor having a drain contact in which drain contacts of the selection transistors are led to the surface of the arrangement;~~

arranging an electrode;

~~in which providing a layer is deposited between the drain connections and the electrode electrically linking the drain connections to the electrode, the whose electrical resistance of the layer can be changed through the effect of a configuration voltage or a configuration current, it being possible for the electrical resistance of the layer to be changed locally;~~

~~in which an electrode is arranged above the layer,~~

~~in which forming a source connection is formed per selection transistor[[.]]; and~~

~~in which forming a bit line is formed which is electrically connected to at least one source connection,~~

~~in which the layer is formed as a common layer for linking the drain connections to the electrode.~~

25. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in~~of claim 24, ~~in which wherein~~ the layer is deposited as a common layer for linking the drain connections to the electrode above the selection transistors.

26. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in~~of claim 24 or claim 25, ~~in which wherein~~ the selection transistors are produced in a front end process.

27. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in~~one of claims 24 to 26, ~~in which wherein~~ the layer is deposited in a back end process.

28. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in one of claims 24 to 27, in which~~ wherein the selection transistors are constructed in planar fashion in the substrate.

29. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in one of claims 24 to 27, in which~~ wherein the selection transistors are constructed vertically in the substrate.

30. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in one of claims 24 to 29, in which~~ wherein the layer is formed as a molecular layer.

31. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in of claim 30, in which~~ wherein the layer contains rotaxane.

32. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in of claim 30, in which~~ wherein the layer contains catenane.

33. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in of claim 30, in which~~ wherein the layer contains a bispyridinium compound.

34. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in one of claims 24 to 29, in which~~ wherein the layer is formed as a dielectric.

35. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in of claim 34, in which~~ wherein the layer contains SrZrO₃.

36. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in one of claims 24 to 29, in which~~ wherein the layer is formed as a polymer.

37. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in~~in of claim 36, ~~in which~~ wherein the layer contains a 3-nitrobenzal malonitrile, 1,4-phenylenediamine complex.

38. (Currently amended). The method for producing an integrated read-only memory ~~as claimed in~~in one of claims 24 to 29, ~~in which~~ wherein the layer contains a chalcogenide compound.

39. (New). The method for producing an integrated of claim 24, wherein the selection transistors are produced using CMOS technology.